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Research paper

Intensive care professionals' perspectives on dysphagia management: A focus group study

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ABSTRACT

Background: Intensive care unit (ICU)-acquired dysphagia has severe consequences for patients including increased morbidity and mortality. Standard operating procedures, however, including systematic evaluation of swallowing function and access to specialised assessment and training may be limited. Dysphagia management relies on multiprofessional collaboration, but practice is variable and nonstandardised.

Objective: The objective of this study was to explore and compare nurses', physicians', and occupational therapists' perceptions of dysphagia management in the ICU.

Materials and methods: Six focus group interviews with 33 participants (23 nurses, four physicians, and six occupational therapists) were conducted and analysed using the framework method with a matrix developed from the first interview. Content from the interviews was plotted into the matrix, condensed, and refined.

Findings: Clinical dysphagia management depended on recognising signs of dysphagia in patients at risk. Assessment, therapeutic methods, and care differed among professional groups according to knowledge and roles. Interprofessional collaboration and responsibility for dysphagia management across the care continuum was determined by availability of resources, practical skills, knowledge, and formal decision-making competence and judged effective when based on mutual respect and recognition of healthcare professionals' different perspectives.

Conclusion: Systematic interprofessional collaboration in ICU dysphagia management requires working towards a common goal of preventing aspiration and rehabilitating the patients' ability to swallow safely. This is based on dysphagia assessment, using appropriate therapeutic interventions, sharing knowledge, and improving skills among professional groups.

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1. Introduction

Dysphagia may be defined as the partial or complete inability to prepare and move a bolus of food, fluids, or saliva efficiently and

safely from the mouth to the oesophagus and stomach.^{1–3} In the intensive care setting, dysphagia may be related to trauma of the airway, neuromuscular weakness, compromised attention, loss of laryngeal sensation, high respiratory rate, and gastro-oesophageal reflux.² In a study by Scheffold et al.,⁴ dysphagia affects 12–18% of intubated and mechanically ventilated patients admitted to the intensive care unit (ICU). However, depending on population, prevalence may range between 3% and 62%² or as high as 93% in patients with neurological diseases.^{2,4–6} Dysphagia increases the risk of aspiration, pneumonia, prolonged mechanical ventilation, and mortality.^{4–7}

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According to a multinational survey among critical care physicians from 69 countries, critical illness-related dysphagia was a relevant issue, albeit approaches to screening, diagnosis, and therapy were variable and nonstandardised.⁸ A Swiss national survey showed that only two-thirds of all participating units had implemented standard operating procedures for oropharyngeal dysphagia and the majority assessed dysphagia-related risk on an individual basis.⁹

A small Australian survey demonstrated that nurses have indeterminate and variable views on what constitutes safe swallowing.¹⁰ Furthermore, nurses may have received little or no formal training and consequently feel less confident screening for dysphagia.¹¹ Yet, it often falls upon nurses to assess patients' swallowing function at the bedside to determine whether to offer food or fluids when more specialised professionals are unavailable.¹⁰ Critically ill patients may have competing and at times conflicting needs that interfere with dysphagia management. These might include thirst^{12,13} where patients' right to exercise self-determination^{14,15} may lead patients to drink and eat against given advice.

In Denmark, specialised dysphagia assessment and treatment is performed by occupational therapists (OTs), but in many other countries, specialised dysphagia care is offered by speech and language pathologists or therapists (SLPs) and includes clinical and instrumental examination of the swallowing function and provision of rehabilitative or compensating interventions in collaboration with the patient and relatives.¹⁶ According to a multinational survey covering 746 ICUs in 26 countries, clinical approaches to dysphagia management usually performed by SLPs include (but are not limited to) oral mechanism examination including cranial nerve assessment, repetitive swallowing exercises, respiratory exercises, and postural compensation, whereas neuromuscular electrical stimulation techniques were less frequently used.¹⁷ In comparison, OTs in Danish settings primarily employ facial-oral tract therapy (FOTT) originally developed by Coombes¹⁸ and Bobath,¹⁹ a neuro rehabilitation concept where posture and facilitation are therapeutically used to improve motor control and perception.¹⁹ Both OTs and SLPs use instrumental examinations of swallowing function including fiberoptic endoscopic evaluation of swallowing (FEES), which is described as the gold standard evaluation of swallowing function that can be undertaken at the bedside.²⁰ Another method is Evans blue dye test,²¹ using blue dye to examine swallowing safety in patients with tracheostomy. If sputum below the cuff appears coloured, aspiration to the airway should be suspected.²¹ Sensitivity of the blue dye test is, however, poor (38–95%), whereas specificity is high (79–100%), thus limiting the clinical usefulness in detecting aspiration.²¹

A multiprofessional approach is advocated by Brodsky et al.²² The high-tech ICU environment, however, may intimidate some healthcare professionals that are not used to working in the ICU.¹⁶ As practice is varied and standard operating procedures are often lacking,^{8,9,17,23} a more comprehensive understanding of how dysphagia is perceived and managed in relation to critically ill patients in a multiprofessional setting is needed.

2. Aim

We aimed to explore and compare nurses', physicians', and OTs' perceptions of dysphagia management in the ICU.

3. Methods

3.1. Design

The study had a qualitative multicentre design using focus groups²⁴ and the framework method²⁵ to explore dysphagia management in Danish ICUs in November 2019–August 2020.

3.2. Research team and reflexivity

We used investigator triangulation during data acquisition and analysis. Authors AHN, BHN, GJK, LS, and IE were certified critical care nurses, and AHN, GK, and IE were experienced qualitative researchers. All authors were female nurses, and AHN and IE were doctorally prepared. AHN, BHN, GJK, and LS were employed in the clinic and acquainted with some of the participants. AHN and GK moderated all interviews; BHN, GJK, and LS were observers.²⁶

3.3. Selection of participants

We included critical care nurses, anaesthesiologists/critical care physicians, and OTs, all with experience of handling ICU-acquired dysphagia. We sampled strategically for maximum variation representing large university hospitals and smaller regional hospitals with or without specialised neuro-rehabilitation, as clinics with neuro-rehabilitation generally have more resources available for specialised dysphagia management (Table 1). Initially, we conducted four focus group interviews with nurses from different hospitals. It became evident that we needed to expand our study to include OTs and physicians to achieve data saturation.²⁴ Therefore, we included one focus group with OTs consisting of participants from three different hospitals as each hospital had only few OTs dedicated to intensive care and one focus group consisting of physicians from two different hospitals to accommodate the physicians' schedule.

3.4. Setting

All interviews were conducted in an undisturbed office in the clinic except the interview with the OTs who were interviewed using a web application due to the COVID-19 pandemic. Hospitals A and E were university hospitals, and hospital B, C, and D were regional hospitals. Hospitals B, C, and E had patients with neurologic diseases in the ICU from which participants were sampled.

3.5. Data acquisition

We planned a semistructured question route with an opening question bringing everyone into the conversation,²⁴ followed by questions into three key areas: (i) How dysphagia is recognised, (ii) How dysphagia is managed, and (iii) Suggestions for the improvement of dysphagia management in the ICU. Each focus group was concluded with a summary of the discussion and a closing question prompting participants to add anything of relevance that had not been included in the interview.²⁴ The first focus group served as a pilot, and the question route was slightly amended after the first interview where we added two example cases to illustrate typical ICU patients with potential dysphagia.

All interviews lasted 45–90 min and were digitally recorded and transcribed verbatim by the first author and a student noting expression of feeling such as laughter, emphasis, pauses, or hesitation. Notes were taken by the observer and/or the moderator for summarising the discussion, but not included in the final dataset.

3.6. Data analysis

Data were analysed using the five-step framework method as described by Gale et al.²⁵ The framework method is characterised by the matrix of cases and codes,²⁵ which allowed us to examine data according to participant groups and themes and thereby understand differences and similarities among the professional groups. The analysis began with thoroughly reading the transcripts and becoming familiarised with the interviews. Hereafter, the first

Table 1
Participant characteristics.

Interview number	Participant number	Hospital	Profession function	Age	Sex	ICU experience	Clinical experience
1	P11	A	ICU nurse, special function	52	F	18	25
1	P12	A	ICU nurse, special function	46	F	17	18
1	P13	A	ICU nurse, special function	53	F	21	23
1	P14	A	ICU nurse	56	F	29	31
1	P15	A	ICU nurse, special function	44	F	11	11
1	P16	A	ICU nurse	40	F	11	14
1	P17	A	ICU nurse	57	F	13	15
2	P21	B	ICU nurse	36	F	5	10
2	P22	B	ICU nurse	59	F	30	35
2	P23	B	ICU nurse	57	F	22	30
2	P24	B	ICU nurse	28	M	3	4
2	P25	B	ICU nurse	55	F	19	27
2	P26	B	ICU nurse	34	F	3	8
3	P31	C	ICU nurse	60	F	19	35
3	P32	C	ICU nurse	49	F	14	22
3	P33	C	ICU nurse	53	F	24	28
3	P34	C	ICU nurse, special function	54	F	20	26
3	P35	C	ICU nurse	53	F	20	30
3	P36	C	ICU nurse	51	M	14	20
4	P41	D	ICU nurse	45	F	18	21
4	P42	D	ICU nurse	52	F	27	27
4	P43	D	ICU nurse	42	F	7	16
4	P44	D	ICU nurse	56	F	27	31
5	P51	E	Occupational therapist	43	F	10	17
5	P52	A	Occupational therapist	40	F	5	13
5	P53	E	Occupational therapist	33	M	4	10
5	P54	C	Occupational therapist, special function	35	F	6	7
5	P55	C	Occupational therapist	39	F	1	3
5	P56	A	Occupational therapist	38	F	8	9
6	P61	B and D	Physician	38	M	7	10
6	P62	B and D	Physician	61	M	33	42
6	P63	B and D	Physician	49	M	17	22
6	P64	B and D	Physician	50	M	16	28

Special function includes responsibility for, for example, education, training, development within own practice.
ICU: intensive care unit; F: female; M: male.

interview was coded inductively by AA. Based on this coding, an analytic framework matrix was developed by all authors containing 10 categories (signs of dysphagia, therapy, documentation, transitions, complications, resources, interdisciplinary, competency, patient and family, suggestions, bordering issues). Using QSR NVivo 12 computer software, this framework of categories was then applied to the remaining interviews by AA. Data were then charted into the framework matrix for each professional group (Table 2). At the same time, all authors recorded ideas, impressions, and interpretations of the data and allowed for the mapping of connections, contrasting, and comparing the perceptions of each professional group on dysphagia management in the ICU. In the process of condensing the matrix content, the categories documentation, transitions, and complications were collapsed into one category termed continuity of care. The category of patient and family was omitted as the content fitted into other categories. Comprehensive descriptions of each category and each professional group allowed all investigators to engage with the data analysis. Easy access to the original transcripts in NVivo 12 allowed for a process of moving back and forth in the analysis, thereby verifying the findings, illustrating with citations as appropriate,²⁵ and ensuring rigour and trustworthiness.²⁷

3.7. Ethical considerations

Participants were approached in person for the study by either one of the authors or an intermediary, except OTs who were contacted by email. Participants received written and verbal information about the study prior to the interviews and gave written, informed consent to participate in the study. None refused

participation. After the interviews, the participants were informed of their right to withdraw from the study; no one chose this.

In case of disagreements between participants during the interviews, participants were not pushed to reach an agreement. Two researchers were available for debriefing of participants after the interviews should they need it.²⁴

To protect participant confidentiality, participants were urged not to share impressions from the focus group interview outside the focus group and all data were anonymised. The study was registered with Region Central Jutland, identifier 1-16-02-312-19; approval by the ethics committee was not sought as Danish Law does not give the option for this. However, the study was conducted in accordance with the Helsinki Declaration.²⁸ We followed the The Consolidated Criteria for Reporting Qualitative Studies (COREQ) guidelines.²⁶

4. Findings

We conducted six interviews consisting of (i) seven nurses, (ii) six nurses, (iii) six nurses, (iv) four nurses, (v) six OTs, and (vi) four anaesthesiologists/critical care physicians (Table 1).

Clinical dysphagia management in the ICU depended on assessing patients at risk, recognising signs of dysphagia, and providing therapy and care for the patient in the ICU and during transitions. Interprofessional collaboration and responsibility for dysphagia management was determined by available resources, health professionals' practical skills, competencies, and decision-making authority. Consequently, health professionals assumed different roles in dysphagia management, which was judged effective when based on mutual respect (Table 2).

Table 2

Matrix comparing nurses', physicians', and OTs' perceptions of dysphagia management in the ICU.

Professional group	Assessing patients at risk of dysphagia			Management of dysphagia		Professional roles in dysphagia management		Theoretical, practical, and formal competencies in dysphagia management	
	Risk of dysphagia	Method of assessment	Signs of dysphagia	Therapy and care	Continuity of care	Professional roles	Availability of resources	Knowledge and skills	Formal decision-making authority
Nurses	General patient condition and contextual factors Mechanical impediments, e.g., ET tube/tracheostomy	Continuous clinical observation Trial and error with fluids or foods	Visible or audible aspiration, e.g., coughing, choking, or desaturation	Support safe swallowing by positioning and texture modified food and fluids to achieve wellbeing and nutritional needs Nonsystematic practice	Good shift handover prevents aspiration pneumonia and reintubation.	Inform physicians and recommend OT	Availability of OT reduces nurses' workload	Practical skills, rather than theoretical knowledge Requests education	No formal decision-making authority Dysphagia assessment supported by physician
OTs	Neurological condition Mechanical impediments, e.g., ET tube/tracheostomy	Structured clinical assessment using FOTT, blue dye, or FEES	Ineffective or delayed swallowing when tested	Therapeutic swallowing assistance Rehabilitating swallowing function Offering expert advice to physicians and nurses	Good interdisciplinary communication reduces risk of aspiration, pneumonia, and reintubation	Assess swallowing function Recommend dietary intake, deflation of cuff, or decannulation after referral from physician	Specialised dysphagia management may be limited to patients with neurological conditions	Theoretical and practical knowledge Consider themselves experts	Decision-making authority as part of a team
Physicians	Various diagnoses Mechanical impediments, e.g., ET tube/tracheostomy Length of stay	Assessment of general condition and staff report	Clinical and paraclinical assessment, e.g., x-ray	Requests evidence-based interventions Nil per mouth and pharmacological reduction of saliva Respects patients' determination to drink and eat	Transfer to the ward is necessary for further rehabilitation	Dysphagia care is a delegated practice	Patients are weaned from cuffed tubes to manage limited ICU resources	Theoretical knowledge rather than practical skills	Formal decision-maker Responsible treatment and care in the ICU

OT: occupational therapy. OTs: occupational therapists. FOTT: facio-oral tract therapy. FEES: fiberoptic endoscopic evaluation of the swallowing function. ET tube: endotracheal tube.

4.1. Assessing patients at risk of dysphagia

Physicians and nurses regarded contextual factors such as length of stay, prolonged intubation time, and poor general condition as risk factors for dysphagia. OTs and physicians considered neurological disorders, for example, stroke or Parkinson's disease, as risk factors for dysphagia. All professional groups agreed that presence of tubes or tracheostomy put the patient at risk of dysphagia, OTs and physicians described the tracheostomy tube as preventing elevation of the larynx during swallowing, and OTs underscored that contrary to what some nurses thought, an inflated cuff could not prevent aspiration to the airway.

OT: Many [people] say that if the patient is cuffed there shouldn't be anything wrong with feeding them. But it probably isn't a hundred percent safe. When they [patients] start to move (OT turns her head from side to side) it might leak (P56).

Nurses had differing views on whether inflation of the cuff during swallowing would secure the airway or exacerbate swallowing dysfunction.

Assessment of dysphagia differed between professional groups. OTs used structured methods such as FOTT, blue dye test, and occasionally FEES to evaluate the patient's ability to swallow, whereas nurses' assessment of swallowing was embedded in their clinical practice on a continuing basis. When in doubt of the patient's ability to swallow, both nurses and physicians viewed it acceptable to let the patient try small sips of water, ice chips, or texture-modified beverages or foods despite the risk of aspiration pneumonia.

Physician: The basic test is to let the patient eat and drink, and two days later there is pneumonia. This is a bit, well, ... we do this sometimes ... (P63)

Physicians depended on feedback from nurses and OTs' FOTT assessment but preferred the more technical FEES examination, if they were to take on clinical assessment of dysphagia themselves.

Signs of dysphagia were described by nurses and physicians primarily as signs of aspiration. This included coughing, increased airway secretions, or desaturation in relation to the patient's intake of fluids or food.

Nurse: Well, it's ... It could be coughing, for instance ... and then loose secretions that don't move on down the throat. (P17)

In addition, nurses reported that lack of reaction when suctioned and altered cognitive status could indicate dysphagia. Physicians included basal right pulmonary infiltrate on chest X-ray or a medical history of repeated pulmonary infections as signs of aspiration. OTs observed the patients' swallowing function and regarded delayed swallowing, coughing, and delayed coughing as signs of dysphagia. Furthermore, nurses and OTs regarded large amounts of saliva as a sign of dysphagia, whereas physicians regarded increased saliva volume as a problem distinct from dysphagia that could be solved medically.

4.2. Management and continuity of care

Nurses supported safe swallowing by positioning the patient at risk of dysphagia in an upright position, by verbally guiding the patient to swallow, and taking the patients' cognitive status and diurnal variations into account when choosing appropriate texture-modified diet and fluids. However, nurses and physicians would sometimes allow the thirsty patient to drink, disregarding the risk of dysphagia; nurses because they focused on providing comfort and well-being (alleviating thirst); physicians with reference to patient self-determination (autonomy). However, nurses' dysphagia practice was varied and highly dependent on the assessment of the individual nurse.

Nurse: well, one nurse might think this is choking. He should have nothing by mouth. Another nurse might decide that it's just a little cough. Their interpretation is different (P16).

By contrast to nurses, OTs took a therapeutic approach to examination and rehabilitation, drawing on neuro-rehabilitation approaches such as FOTT and the Bobath method of stroke rehabilitation. OTs strove to facilitate swallowing starting with control of body posture and muscle tone. Training involved oral stimulation, therapeutic tooth brushing, and application of air through tracheostomy suction aid to sensitise the larynx and pharynx. Based on their assessment, OTs advised nurses and physicians on when to deflate the cuff or decannulate patient altogether. OTs supervised nurses' oral stimulation, although nurses felt more comfortable performing tooth brushing and oral care for hygienic reasons.

Nurse: But, as you say, it's about the technique, it's difficult ... the OT taught us, and we work as nurses, and they work therapeutically, their work is different. I feel that I must deal with this in a different way (P34).

Nurses and physicians shared the goal of preparing the patient for safe transfer out of the ICU to facilitate further rehabilitation. Transferring the patient to a ward most often required the patient to have the tracheostomy removed or at least the cuff deflated. To achieve this, large amounts of saliva would be treated medically, and dysphagia treated by a nil per mouth order and continued tube feeding. Physicians required evidence-based interventions to treat ICU patients but did not regard occupational therapy as evidence-based in this context.

By contrast to physicians, both nurses and OTs were concerned that information loss during handover might be a threat to continuity of care. Nurses feared that important information on dysphagia management was lost between the ICU and the ward. Similarly, OTs had experienced that information was lost between different professional groups. To both professional groups, information loss was perceived as increasing the risk of aspiration and reintubation.

4.3. Professional roles in dysphagia management

Nurses, physicians, and OTs assumed different, and complementary, roles in dysphagia management. If dysphagia was suspected, nurses prompted physicians to refer the patient to specialised dysphagia management by OTs, who assessed swallowing. If OTs frequented the ICU daily, OTs would make the referral themselves. However, not all patients with suspected dysphagia were seen by an OT because non-neurological specialties allocate fewer resources for specialised dysphagia management. Consequently, nurses found that limited access to specialised dysphagia care could add to their workload, take time from other nursing activities, and make nurses reluctant to taking on dysphagia management.

Nurse: When patients need something more, the OTs should take over. Otherwise the nurses will have to take on more OT functions and I don't know what else (P17).

OTs handled dysphagia rehabilitation and made recommendations for dietary intake, cuff deflation, or even decannulation. Although physicians acknowledged dysphagia as important, it was not the primary focus of physicians, who considered it an inherent consequence of critical illness or other diseases.

Physician: We don't always give it [dysphagia] the same priority ... as everything else, you know? Not because it isn't interesting, but we have other priorities (P62).

Furthermore, as physicians were responsible for managing the limited ICU resources, their approach to dysphagia was to wean

patients from tubes, prevent aspiration, and await recovery, while transferring the patient to further rehabilitation at a general ward. This might contradict the OT's advice of keeping patients cuffed, which rendered fast transition to the ward impossible.

OT: (nods), yes. Of course, we have discussed with the physicians what is best for the patient, whether quality of life is eating or avoiding aspiration pneumonia. We might disagree from time to time (smiles) (P54).

4.4. Theoretical, practical, and formal competencies in dysphagia management

OTs had theoretical knowledge and practical skills for dysphagia management, whereas physicians had theoretical knowledge on swallowing physiology but less practical skills. Yet, physicians had the overall responsibility and formal decision-making authority on the patient's ICU treatment. To make up for this discordance between expertise and formal authority, OTs sought to build informal decision-making competence by consolidating the interprofessional collaboration.

OT: yes, we have progressed her ... we feel we have succeeded in relation to collaboration with nurses where they ask our advice and vice versa. If the physicians agree and we don't always have to follow the same procedure. If we can convince them, we do it (P51)

Nurses had practical experience with handling dysphagia patients but felt a lack of theoretical insight into swallowing physiology and treatment principles. Therefore, nurses requested more education on dysphagia management.

Nurse: I think we lack training if we have to follow up on the OT's assessment (P15).

Moreover, nurses had no formal authority to assess dysphagia or decide on cuff status. Nurses were supported by the physicians when they used their clinical experience and more intuitively decided whether to feed the patient.

Nurse: Because we need to acknowledge dysphagia, but we won't get any further if we don't try, you know? (P11).

Nurses, physicians, and OTs had different competencies, knowledge, and priorities when handling the dysphagic patient; however, all groups agreed that respectful and effective interprofessional collaboration built on professional argumentation, structured assessment procedures, and supervision where needed.

5. Discussion

This study showed that dysphagia management depended on collaboration among different professions towards a shared goal of avoiding aspiration to the airway and rehabilitating patients' ability to swallow safely. In order to accomplish this shared objective, nurses, physicians, and OTs assumed different roles and used different techniques according to their theoretical knowledge, skills, and decision-making authority. When they worked together, they complemented each other and provided better patient care. Nurses' and physicians' methods for swallowing assessment were based on their continuous observations of the patients' general condition but to some extent also a question of trial and error when accommodating the patients' wish for fluids or food, whereas OTs had a more systematic approach to dysphagia assessment. Moreover, all professional groups agreed that aspiration was harmful and consequently that dysphagia management was important. This is in agreement with findings from several other studies.^{8,9,23} In a Dutch national survey, most intensivists rated dysphagia as important, yet only 22% of all ICUs systematically screened for postextubation dysphagia, and only 45% screened for dysphagia after a tracheostomy had been performed.²³ In a Swiss national study, Zuercher et al. found that although 68% of all ICUs had

standard operating procedures for oropharyngeal dysphagia, only 27% screened all ICU patients systematically.⁹ In the present study, most nurses relied on continuous clinical observation of swallowing ability in addition to OTs' structured assessment. However, a study by See et al. showed that systematic nurse-performed dysphagia screening of all extubated patients increased the odds of oral feeding by 111% and decreased postextubation pneumonia by 59%.²⁹ This indicates that interprofessional dysphagia management in the ICU may be strengthened if nurses systematically screen all patients followed by a subsequent confirmatory test by a specialist, as suggested by Zuercher et al.⁹

In the present study, actual swallowing rehabilitation and supervision of nurses' oral stimulation activities was supervised by OTs. This has also been described by van Snippenburg et al.²³ Our study showed that nurses' therapeutic strategies towards dysphagia included positioning the patient in an upright position and choosing texture-modified diet and fluids, which was supported by findings of Zuercher et al.⁹; however, our study also showed that nurses considered the diurnal rhythm, cognitive status, and general condition when determining the patient's readiness for oral intake. Physicians used nil by mouth orders, tube feeding, and anticholinergic saliva reduction. This corresponds to findings from other studies.^{9,23} However, our study showed that nurses' and physicians' strategies were directed towards the prevention of aspiration rather than rehabilitation of swallowing function, which is similar to findings in the MAD-ICU (Management of Dysphagia on Intensive Care Units) survey of intensivists' perception of dysphagia.⁸ In our study, rehabilitation of swallowing function was primarily the domain of the OTs, which is also mentioned by Zuercher et al.⁹ To make a difference to patient care, however, our study showed that OTs were committed to sharing knowledge about swallowing function with other professions.

In a review by Donovan et al., interprofessional care is described as care provided by a multiprofessional team with overlapping expertise and mutual appreciation for the unique contribution of each team member in achieving a common goal.³⁰ Furthermore, interprofessional care is characterised by care provided across disciplines and shared to some extent.³⁰ As such, Donovan et al. distinguish between multiprofessional care, meaning different professionals working alongside, and interprofessional care, indicating a higher level of integration of different professional perspectives.³⁰ A qualitative study by Smith-Tamaray et al. explored SLPs views on collaborating with a multiprofessional team in a stroke patient setting.³¹ SLPs found that regular and continued interaction with other professions in the team increased team members' compliance with SLP's recommendations for dysphagia management.³¹ Moreover, Smith-Tamaray found that being present and interacting with team members led to SLPs being involved in decision-making.³¹ This is similar to the present study, where OTs sought to influence decision-making processes by being present and collaborating with other team members, for example, nurses and physicians, and indicative of working towards interprofessional care.

We found that all professionals agreed that interprofessional care depended on mutual respect and professional argumentation; however, we also found that health professionals had different priorities for patient care, for example, covering the patients' nutritional needs, alleviating thirst, preventing aspiration, weaning from the tube, and preparing the patient for transfer out of the ICU. These different priorities and goals for the patients' care could potentially lead to conflicts. Conflicts in multiprofessional teams have previously been reported by Reeves et al. who stated that problems in multiprofessional team interactions may affect patient care negatively, although clear evidence of how to improve collaboration was lacking according to Reeves et al.³² In the present

study, nurses expressed a need for further training to achieve a better understanding of dysphagia and a more uniform practice. This suggests that educating nurses in assessment and management of dysphagia may be a starting point for improving inter-professional care for critically ill patients with insufficient swallowing abilities. A study by Kajii et al. evaluated the effectiveness of teaching swallowing assessment to nursing students³³ and found that knowledge increased, whereas self-confidence was rated low. This suggests that while teaching nursing students about swallowing disorders is beneficial, it must be followed through by continued training in practice.³³ The study by Smith-Tamaray et al. also showed that SLPs believed that educating and improving knowledge in other professional groups was key to improving interprofessional collaboration and care for the dysphagic patient.³¹ Further pregraduate and postgraduate education of nurses and physicians may therefore contribute to achieving the interprofessional care provided across disciplines as described by Donovan et al.³⁰

5.1. Limitations

We interviewed nurses, physicians, and OTs in this study. However, other professional groups such as dietitians, ear-nose-and-throat specialists, and SLPs may provide other insights into professional dysphagia management. Interviews were conducted in focus groups, and group dynamics that we were unaware of may have caused some viewpoints to be suppressed. Nonetheless, the interviewees described a range of ideas and did not always agree. Interviews with patients and families could also provide important perspectives on dysphagia management; however, this was beyond the scope of our study. Trustworthiness²⁷ was ensured by using an established research method and a computer software program to support analysis and provide an audit trail. Transferability is possible at ICUs with a similar context.

6. Conclusion

Systematic interprofessional collaboration in ICU dysphagia management requires working towards a common goal of preventing aspiration and rehabilitating the patients' ability to swallow safely. This is dependent on dysphagia assessment, the use of appropriate therapeutic interventions, sharing knowledge, and improving skills among professional groups. Furthermore, nurses, physicians, and OTs should acknowledge the different priorities of each profession, which may all be valid and justified in terms of caring for the patients' different needs.

CRedit authorship contribution statement

Anne Højager Nielsen: Conceptualisation, Methodology, Formal analysis, Investigation, Resources, Data Curation, Writing – Original Draft, Writing – Review & Editing, Supervision, Project administration, Funding acquisition. Gudrun Kaldan: Conceptualisation, Methodology, Formal analysis, Investigation, Writing – Review & Editing. Birthe Husted Nielsen: Formal analysis, Investigation, Writing - Review & Editing. Gitte Juhl Kristensen: Formal analysis, Investigation, Writing - Review & Editing. Luise Shiv: Formal analysis, Investigation, Writing - Review & Editing. Ingrid Egerod: Conceptualisation, Methodology, Formal analysis, Writing – Review & Editing, Supervision.

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Conflict of interest

Gudrun Kaldan, Gitte Juhl Kristensen, Birthe Husted Nielsen, Louise Shiv, and Ingrid Egerod declare no conflicts of interest.

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